

7.0 Regulatory Requirements

This chapter presents descriptions of federal, tribal, and state regulatory requirements that may be applicable to the on-site and off-site disposal alternatives.
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For this EIS, regulatory requirements are the laws, regulations, executive orders, and regulatory guidance that are, or may be, applicable to the alternatives analyzed in this EIS and that are critical to the decision-making process. The discussion of regulatory requirements is divided into three categories: federal, Native American, and state.

7.1 Federal Regulatory Requirements

7.1.1 National Environmental Policy Act, 42 *United States Code* (U.S.C.) §§ 4321 et seq.

NEPA requires that a federal agency evaluate the potential environmental effects of implementing a proposed action. The Council on Environmental Quality has promulgated regulations to implement the procedural provisions of NEPA. These regulations are binding on all federal agencies and are codified at 40 CFR 1500–1508. These regulations specify the content of an EIS and include requirements for cooperating agency and public involvement. In addition, DOE has promulgated its own NEPA-implementing regulations, which are codified at 10 CFR 1021. DOE has complied, or is complying, with these requirements in generating this EIS.

This EIS is also intended for use by the BLM and the NPS to meet NEPA requirements for decisions they may need to make with respect to the proposed remediation and disposal of the Moab uranium mill tailings pile. The *Bureau of Land Management Manual 1790* (BLM 1988a) and *National Environmental Policy Act Handbook* (BLM 1988b) implement BLM NEPA regulations. NPS NEPA regulations are implemented under Director's Order 12 *Conservation Planning and Environmental Impact Analysis and Decision-Making* (NPS 2001).

7.1.2 Uranium Mill Tailings Radiation Control Act, 42 U.S.C. §§ 7901 et seq., as amended

In 1978, public concern about potential human health and environmental effects of uranium mill tailings led Congress to pass UMTRCA, which amended the Atomic Energy Act. In UMTRCA (Title I), Congress acknowledged the potentially harmful health effects associated with uranium mill tailings and identified 24 inactive uranium-ore processing sites that must be considered for remedial action. UMTRCA directs EPA, DOE, and NRC to undertake certain actions as described below.

Title I of UMTRCA provides the basis for

- EPA standards for the remediation of RRM-contaminated soils, buildings, and materials that ensure protection of human health and the environment.
- EPA standards and compliance options for RRM-contaminated ground water, including supplemental standards, ACLs, and institutional controls.
- EPA standards for remediation of vicinity properties.

- NRC review of completed site remediation for compliance with EPA standards.
- NRC licensing of the site, property transfers to states, or DOE long-term surveillance and maintenance.

In 1983, Congress amended UMTRCA, directing EPA to promulgate general environmental standards for the processing, possession, transfer, and disposal of uranium mill tailings. These standards, titled “Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings” (codified at 40 CFR 192 [Subparts A, B, and C]), include exposure limits for surface contamination and concentration limits for ground water contamination. DOE is responsible for ensuring compliance with surface and ground water standards at Title I sites.

Title II of UMTRCA provides the basis for regulating active uranium-ore processing sites licensed by NRC. Although it is not applicable to the inactive Moab site, it is applicable to the currently operating White Mesa Mill.

The 40 CFR 192 Subpart A disposal standards for control of RRM are design based with specific performance requirements: ensure that a disposal cell will be reasonably effective for up to 1,000 years (and a minimum of 200 years); limit the release of radon-222 to the atmosphere; and provide ground water protection. Numerical standards are provided for radon-222 releases to the atmosphere and for ground water protection. Corrective actions are required within an 18-month period if contaminant concentrations in ground water at disposal sites exceed the ground water protection standards. Provisions in 40 CFR 192 also allow for the application of supplemental standards and ACLs for ground water contaminants based on site-specific circumstances.

Subpart B standards for cleanup provide numerical standards for cleanup that are based on concentrations of radium-226 in surface materials (e.g., soils) and for exposure to radiation in buildings. Ground water cleanup standards are the same as the protection standards specified in Subpart A. In addition to active remediation, natural flushing is an acceptable means of meeting the standards if they can be met within 100 years and if enforceable institutional controls can be put in place during this time.

Subpart C of 40 CFR 192 provides guidance for implementing Subparts A and B. Subpart C requires that standards be met on a site-specific basis using information gathered during site characterization and monitoring. A RAP is required to demonstrate how requirements of Subparts A and B are to be met. Criteria are also presented for determining the applicability of supplemental standards.

Radon-222

Radon is a naturally occurring inert radioactive gas found in soil, rock, and water throughout the United States. It has numerous isotopes, but radon-220 and radon-222 are the most common. Radon causes lung cancer and is a threat to human health because it tends to collect in homes, sometimes to very high concentrations. As a result, radon is the largest source of exposure to naturally occurring radiation.

Radon-222 is the decay product of radium-226. Radon-222 and its parent, radium-226, are part of the long decay chain for uranium-238. Because uranium is essentially ubiquitous in the Earth's crust, radium-226 and radon-222 are present in almost all rock, soil, and water.

Following a decision to remediate the Moab site, DOE would prepare a remedial action plan for the site. The plan would describe the site restoration activities that, when remedial action was completed, would result in compliance with applicable environmental standards. This plan would be reviewed by NRC, which must approve the plan.

UMTRCA Title I also requires that upon completion of remedial action, each designated disposal site must be monitored and maintained by a federal agency under the NRC general license at 10 CFR 40.27. To meet this requirement, DOE would prepare a long-term surveillance plan for the disposal site. The plan would specify how DOE would care for and operate the disposal site. Upon NRC concurrence in the plan, the disposal site would be accepted under the general license. The NRC license does not expire. Thus, DOE, or a successor federal or state agency, would have responsibility to care for the disposal site in perpetuity.

7.1.3 Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (Public Law No. 106-398)

The Floyd D. Spence National Defense Authorization Act, enacted in October 2000, gave DOE responsibility for remediation of the Moab site and mandated that the site be remediated in accordance with Title I of UMTRCA. The act also directed that a Plan for Remediation be completed and that NAS provide assistance to DOE in evaluating costs, benefits, and risks associated with remediation alternatives.

7.1.4 Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)

The ESA provides for the protection of threatened and endangered species and designated critical habitat. Section 7 of the act requires federal agencies, having reason to believe that a prospective action may affect an endangered or threatened species or its critical habitat, to consult with USF&WS to ensure that the action does not jeopardize the continued existence of the species or destroy critical habitat. Endangered species and critical habitat exist in the vicinity of the Moab site.

7.1.5 Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.)

The Fish and Wildlife Coordination Act promotes more effectual planning and cooperation between federal, state, public, and private agencies for the conservation and rehabilitation of the nation's fish and wildlife and authorizes the U.S. Department of the Interior to provide assistance. This act requires consultation with USF&WS on the possible effects on wildlife if there is construction, modification, or control of bodies of water in excess of 10 acres in surface area.

7.1.6 Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. 703 et seq.)

The Migratory Bird Treaty Act, as amended, is intended to protect birds that have common migration patterns between the United States and Canada, Mexico, Japan, and Russia. It regulates the harvest of migratory birds by specifying conditions such as the mode of harvest, hunting seasons, and bag limits. The act stipulates that it is unlawful to "take, possess, . . . any migratory bird," unless obtained under a permit. Migratory birds may be affected by one or more of the alternatives.

7.1.7 Clean Water Act, 33 U.S.C. §§ 1251 et seq.

This act and its implementing regulations (40 CFR Parts 110–112, 122–125, 130–131, 230–231, and 404; and 33 CFR 322–330) regulate pollution prevention and discharges of point and non-point discharges, establish water quality standards, and regulate discharges of dredged or fill material into waters of the United States. Although mill tailings are exempt from the definition of a pollutant, discharges from wastewater treatment facilities (if required) may be subject to regulation under the Clean Water Act. Construction activities that disturb more than 1 acre of land require compliance with storm-water management and erosion-control regulations and require storm-water discharge permits. Dredging or filling activities of the Colorado River would also require a U.S. Army Corps of Engineers Clean Water Act Section 404 permit.

7.1.8 Rivers and Harbors Act of 1899, Section 10, 33 U.S.C. 403

This provision regulates the construction of any development or building that affects the “navigable capacity of any of the waters of the United States” and requires the U.S. Army Corps of Engineers’ approval of any action “to excavate or fill, or in any manner to alter or modify the course, location, condition, or capacity of, any port, roadstead, haven, harbor, canal, lake, harbor of refuge, or enclosure within the limits of any breakwater, or of the channel of any navigable water of the United States. . . .”

7.1.9 Floodplain Management and Protection of Wetlands, 10 CFR 1022

DOE regulations codified at 10 CFR 1022 implement the requirements of Executive Orders 11988 (*Floodplain Management*) and 11990 (*Protection of Wetlands*) for actions that may affect these areas. Specifically, they require federal agencies to evaluate actions they may take to avoid, to the extent possible, adverse effects associated with direct and indirect development of a floodplain or a wetland. A portion of the Moab site falls within the 100-year floodplain of the Colorado River, and wetlands exist within and adjacent to the site; however, a formal wetlands delineation has not been conducted to date. A “Floodplain and Wetlands Assessment for Remedial Action at the Moab Site” and a Statement of Findings as required by the DOE regulations is attached as Appendix F to this EIS. Any wetland area disturbance during remediation and restoration must comply with the appropriate requirements. Wetland areas must be identified and delineated for the Moab site and any off-site project locations.

7.1.10 Safe Drinking Water Act, 42 U.S.C. 300f et seq.

The primary objective of this act is to protect the quality of public water supplies. This law grants EPA the authority to protect the quality of public drinking water supplies by establishing national primary drinking water regulations. EPA has delegated authority for enforcement of drinking water standards to the states. EPA regulations (codified at 40 CFR Parts 123, 141, 145, 147, and 149) specify maximum contaminant levels, including those for radioactivity, in public water systems, which are generally defined as systems that serve at least 15 service connections or serve at least 25 year-round residents. The city of Moab derives most of its drinking water from a well field in the Glen Canyon aquifer near the northeast canyon wall of Spanish Valley. Two water-supply wells located near the entrance to Arches National Park are located in the Navajo Formation. The Colorado River is not currently used as a drinking water supply for the City of Moab.

7.1.11 Clean Air Act, 42 U.S.C. §§ 7401 et seq., as amended

This act and its implementing regulations regulate air emissions from treatment processes and construction equipment, fugitive dust, and radon emissions from the tailings pile. The National and Secondary Ambient Air Quality Standards (codified at 40 CFR Parts 50 and 53) address standards and monitoring requirements for PM₁₀ and for lead in ambient air. The National Emissions Standards for Hazardous Air Pollutants (NESHAP) (40 CFR 61 Subpart T) requirements are applicable to control radon emissions from the disposal of uranium mill tailings and apply to the final tailings disposal location after long-term stabilization of the disposal site has been completed as described at 40 CFR 61.221(a) and 40 CFR 61.223(e). However, the NESHAP requirements for radon emissions do not apply during periods of active remediation.

7.1.12 Archaeological Resources Protection Act, 16 U.S.C. §§ 470aa et seq., and National Historic Preservation Act, 16 U.S.C. §§ 470 et seq.

Cultural and historic resources are protected by these acts and their implementing regulations and by Executive Orders 11593 (*Protection and Enhancement of the Cultural Environment*) and 13007 (*Protection and Accommodation of Access to Indian Sacred Sites*). The regulations at 36 CFR 800 require federal agencies to take into account the effect of a proposed action on a structure or object that is included on or is eligible for the National Register of Historic Places and to establish procedures to identify and provide for preservation of historic and archeological data that might be destroyed through alteration of terrain as a result of a federal action. Cultural resources may be present in areas of the proposed alternatives.

7.1.13 Antiquities Act, 16 U.S.C. 431 et seq.

The Antiquities Act protects historic and prehistoric ruins, monuments, and objects of antiquity (including paleontological resources) on lands owned or controlled by the federal government. If historic or prehistoric ruins or objects were identified during the construction or operation of facilities, DOE would have to determine if adverse effects to these ruins or objects would occur. If so, the Secretary of the Interior would have to grant permission to proceed with the activity (36 CFR 296 and 43 CFR Parts 3 and 7).

7.1.14 Federal Land Policy and Management Act, 43 U.S.C. 1701 et seq.

The Federal Land Policy and Management Act (FLPMA), Title V, governs rights-of-way and withdrawals on federal lands administered by BLM (U.S. Department of the Interior). This act requires an application, review, and study by the administering agency and decisions by the Secretary of the Interior on withdrawal of federal lands, including terms and conditions of withdrawals. Access to and use of public lands administered by BLM are primarily governed by regulations regarding rights-of-way (43 CFR 2800) and withdrawals of public domain land from public use (43 CFR 2300).

7.1.15 Noise Control Act of 1972, 42 U.S.C. 4901 et seq., as amended

Section 4 of the Noise Control Act of 1972, as amended, directs all federal agencies to carry out “to the fullest extent within their authority” programs within their jurisdictions in a manner that furthers a national policy of promoting an environment free from noise jeopardizing health and welfare.

7.1.16 Resource Conservation and Recovery Act, 42 U.S.C. §§ 6901 et seq., as amended

RCRA gives EPA the authority to control hazardous waste from “cradle to grave,” including the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also established a framework for the management of nonhazardous wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. RCRA focuses only on active and future facilities and does not address abandoned or historical sites. However, based on historical practices at UMTRA sites, there is the potential for RCRA-regulated waste to be “commingled” with RRM at some vicinity properties. Regulations governing RCRA-regulated waste are in 40 CFR 260–273. This includes waste that may be subject to recycling provisions of the regulations. For the purpose of analysis in this EIS, DOE assumed that all commingled waste would ultimately be approved for management and disposal as RRM and would be disposed of in the selected disposal cell.

7.1.17 Hazardous Materials Transportation Act, 49 U.S.C 1801 et seq.

Transportation of hazardous and radioactive materials in commerce must be conducted in compliance with all applicable state and federal regulations as codified at 49 CFR 130–180. The DOT exemption at 40 CFR 761 may be applied to the bulk transportation of regulated radioactive mill tailings. This exemption provides relief from labeling, placarding, and manifesting requirements that are normally applicable to individual bulk shipments. Bulk transportation packaging requirements for haul trucks and rail cars (e.g., diapering tailgates on haul trucks, covering loads, reducing moisture content) would apply.

7.1.18 Toxic Substances Control Act, 7 U.S.C. 136 et seq.

Some of the provisions of the Toxic Substances Control Act regulate the management and disposal of asbestos and polychlorinated biphenyls (PCBs) that may be present at the site. Although these materials would be managed as RRM on the site, regulations in 40 CFR 761 and 763 would be applicable as best management practices. Both asbestos and PCBs are eligible for disposal in UMTRA disposal cells.

7.1.19 Executive Order 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, February 11, 1994)

This executive order requires each federal agency to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

7.2 Native American Regulatory Requirements

7.2.1 American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996)

This act reaffirms Native American religious freedom under the first amendment to the U.S. Constitution and establishes policy to protect and preserve the inherent and constitutional right of Native Americans to believe, express, and exercise their traditional religions. This law ensures the protection of sacred locations and access of Native Americans to those sacred locations and traditional resources that are integral to the practice of their religions. Further, it establishes requirements that would apply to Native American sacred locations, traditional resources, or traditional religious practices potentially affected by construction and operation activities.

7.2.2 Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001)

The Native American Graves Protection and Repatriation Act directs the Secretary of the Interior to guide the repatriation of federal archaeological collections and collections that are culturally affiliated with Native American tribes and held by museums that receive federal funding. Major actions to be taken under this law include (1) the establishment of a review committee with monitoring and policy-making responsibilities; (2) the development of regulations for repatriation, including procedures for identifying lineal descent or cultural affiliation needed for claims; (3) the oversight of museum programs designed to meet the inventory requirements and deadlines of this law; and (4) the development of procedures to handle unexpected discoveries of graves or grave goods during activities on federal or tribal land. The provisions of the act would be invoked if any excavations associated with construction or operation activities led to unexpected discoveries of Native American graves or grave artifacts.

7.2.3 Executive Order 13007, Indian Sacred Sites

This order directs federal agencies, to the extent permitted by law and not inconsistent with agency missions, to avoid adverse effects to sacred sites and to provide access to those sites to Native Americans for religious practices. The order directs agencies to plan projects to provide protection of and access to sacred sites to the extent compatible with the project.

7.2.4 Executive Order 13175, Consultation and Coordination with Indian Tribal Governments

This order directs federal agencies to establish regular and meaningful consultation and collaboration with tribal governments in the development of federal policies that have tribal implications, to strengthen U.S. government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates on tribal governments.

7.3 State Regulatory Requirements

7.3.1 Clean Water Act Implementing Regulations

Utah Administrative Code (U.A.C.) Section R317-2-13 (Water Quality Standards) classifies the Colorado River and its tributaries as

- 1C Protected as a raw water source for domestic purposes with prior treatment processes as required by the Utah Department of Health;
- 2B Protected for boating, water skiing, and similar uses, excluding swimming;
- 3B Protected for warmwater species of game fish and other warmwater aquatic life, including the necessary aquatic organisms in their food chain; and
- 4 Protected for agricultural uses, including irrigation of crops and stock watering.

Numeric criteria specific to each of these use designations are specified at U.A.C. Section R317-2-14.

7.3.2 State Water Appropriations

Uses of surface water and ground water require compliance with water rights appropriations requirements that are administered by the Utah State Engineer's Office, Department of Natural Resources, Division of Water Rights. Ponding of ground water, construction dewatering of ground water, and use of surface water (i.e., Colorado River) for dust suppression and tailings compaction may be considered consumptive use.

7.3.3 Clean Air Act Implementing Regulations

Utah Air Conservation Rules (19 U.A.C. Section 19-2-101 et seq.) require that fugitive dust be minimized or that measures be taken to prevent its occurrence. Air emissions from a ground water treatment system could also potentially be regulated by these requirements and would require a permit. The Utah Administrative Code requires that ambient air quality be monitored during construction activities.

7.3.4 Radioactive Materials Licensing

As authorized by the Atomic Energy Act of 1954, as amended, the State of Utah is an Agreement State under NRC's program for regulating uranium mills. The *Utah Administrative Code* (UAC) R313-24-4(1)(b) requires the White Mesa Mill site to comply with State requirements for ground water protection. In addition, NRC transferred authority for the regulation of the possession of by-product material by persons to the State of Utah in August 2004. The State's regulatory authority would not apply to DOE's actions at Moab, Klondike Flats, or Crescent Junction.

7.4 References

- 10 CFR 40. U.S. Nuclear Regulatory Commission, “Domestic Licensing of Source Material.”
- 10 CFR 1021. U.S. Department of Energy, “National Environmental Policy Act (NEPA) Implementing Procedures.”
- 10 CFR 1022. U.S. Department of Energy, “Compliance with Floodplain and Wetlands Environmental Review Requirements.”
- 33 CFR 322-330. U.S. Department of Defense, “Navigation and Navigable Waters.”
- 36 CFR 296. U.S. Department of Agriculture, “Protection of Archaeological Resources: Uniform Regulations.”
- 36 CFR 800. Advisory Council on Historic Preservation, “Protection of Historic Properties.”
- 40 CFR 50. U.S. Environmental Protection Agency, “National Primary and Secondary Ambient Air Quality Standards.”
- 40 CFR 53. U.S. Environmental Protection Agency, “Ambient Air Monitoring Reference and Equivalent Methods.”
- 40 CFR 61. U.S. Environmental Protection Agency, “National Emission Standards for Hazardous Air Pollutants.”
- 40 CFR 110-112, 122-125, 130-131, 230-231, and 404. U.S. Environmental Protection Agency, “Protection of the Environment.”
- 40 CFR 192. U.S. Environmental Protection Agency, “Health and Environmental Protection Standards for Uranium and Thorium Mill Tailings.”
- 40 CFR 260. U.S. Environmental Protection Agency, “Hazardous Waste Management System: General.”
- 40 CFR 761. U.S. Environmental Protection Agency, “Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions.”
- 40 CFR 763. U.S. Environmental Protection Agency, “Asbestos.”
- 40 CFR 1500-1508. Council on Environmental Quality, “Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act.”
- 43 CFR 3. U.S. Department of the Interior, “Preservation of American Antiquities.”
- 43 CFR 7. U.S. Department of the Interior, “Protection of Archaeological Resources.”
- 43 CFR 2300. U.S. Department of the Interior, “Land Withdrawals.”

43 CFR 2800. U.S. Department of the Interior, “Rights-of-Way, Principles and Procedures.”

49 CFR 130. U.S. Department of Transportation, “Oil Spill Prevention and Response Plans.”

BLM (Bureau of Land Management), 1988a. *BLM Manual Section 1790, National Environmental Policy Act of 1969* MS 1790, October 25.

BLM (Bureau of Land Management), 1988b. *National Environmental Policy Act Handbook*, BLM Handbook H-1790-1, October 25.

NPS (National Park Service), 2001. *Conservation Planning and Environmental Impact Analysis and Decision-Making*, NPS Director’s Order and Handbook 12, January 8.